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AMENDMENT TO THE SPECIFICATION

Please replace the paragraph beginning on page 4, line 8 with the following amended paragraph:

Fig. 1 is a sectional view of the ex-vessel core melt retention device consisting of a horizontal and vertical pipes, pipe connection part being in the form of a conventional dovetail joint and a flow supply system according to the present invention; and

Please replace the paragraph beginning on page 4, line 10 with the following amended paragraph:

Fig. 2 is a sectional plan view of the ex-vessel core melt retention device, a flow supply system according to a preferred embodiment of the present invention; and

Please replace the paragraph beginning on page 4, line 12 with the following amended paragraph:

Fig. 3 is a sectional view of a supply piping system according to another preferred embodiment of the present invention.

Please replace the paragraph beginning on page 4, line 19 with the following amended paragraph:

Fig. 1 is a partially sectional view showing a state that the present invention is embodied. Horizontal jacket pipes 110, which are installed on a shell boundary of a cavity floor 200, are slightly bent upwards and connected with vertical pipes 130 at both ends like a conventional dovetail joint 112 as shown in Fig. 1. There is no need for great precision here; all that is needed is that fluid from the horizontal jacket pipes 110 have to escape through the corresponding vertical pipes 130. The horizontal jacket pipes 110 have a number of water inlets 111 formed at the lower portions thereof. Shallow water channels 220 are engraved into the cavity floor 200, in

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cancel.

which the horizontal jacket pipes 110 are installed, and run crosswise to the horizontal jacket pipes 110.

Please replace the paragraph beginning on page 5, line 3 with the following amended paragraph:

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The horizontal jacket pipes 110 are oriented along the narrow dimension of the cavity floor 200 and have water inlets 111 formed at their lower half ~~in an appropriate density consisting of a series of holes.~~ The design allows the water ~~to enter the bottom of the pipes 114~~ flooded in the concrete layer 230 to enter the gap between the cavity wall 210 and the end side of the series of horizontal jacket pipes 110, and flow down by gravity to the shallow water channels 220 as shown in Fig. 2. Thus, there is no need for complicated piping for water circulation.

~~\_\_\_\_\_ and The~~ vapor produced by water boiling ~~to~~ inside the horizontal jacket pipes 110 exits ~~exit~~ through the open ends 113 of vertical pipes 130. Any water available from a nuclear power plant may be flooded onto the top of the concrete layer 230.

~~\_\_\_\_\_~~ At this time, gravity assures passive circulation of water under the water boiling conditions. All that is needed is a radius of curvature of the horizontal jacket pipes 110. Preferably, the radius of curvature is about 20m. In this case, the elevation from the center of the horizontal jacket pipes 110 to the wall 210 of the reactor cavity is about 20 cm.

✓ Please replace the paragraph beginning on page 5, line 12 with the following amended paragraph:

~~The present invention takes two methods that the water enters from the bottom of the horizontal jacket pipes 110 over the whole area.~~

Please replace the paragraph beginning on page 5, line 14 with the following amended paragraph:

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cancel.

Fig. 2 is a plan view of Fig. 1 showing those parts included in Fig. 1 except the concrete layer 230 which covers the horizontal jacket pipes 110 to protect against direct ablation caused

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by the melt and against damage caused by loads from the interaction between nuclear fuel and water. sectional view of a flow supply system according to a preferred embodiment of the present invention. Shallow water channels 220 are engraved into the cavity floor 200, in which the horizontal jacket pipes 110 are installed, and run crosswise to the horizontal jacket pipes 110.

Please replace the paragraph beginning on page 5, line 18 with the following amended paragraph:

✓ The horizontal jacket pipes 110 have a number of water inlets A 111 formed at the lower portions thereof.

✓ Please replace the paragraph beginning on page 5, line 20 with the following amended paragraph:

Fig. 3 is a sectional view of a supply piping system according to another preferred embodiment of the present invention. As shown in Fig. 3, horizontal supply pipes 120 are arranged normal to and beneath the horizontal jacket pipes 110. The horizontal supply pipes 120 have water inlets B 121 formed in all directions and locations.

Please replace the paragraph beginning on page 5, line 25 with the following amended paragraph:

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The horizontal supply pipes 120 run along the length of the cavity floor 200. In the methods presented according to the embodiments shown in Figs. 1 and 2 and 3, the radius of curvature needed to support the horizontal jacket pipes 110 is obtained by appropriately shaping the cavity floor 200.